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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/024,495	12/21/2001	Gilles Rubinstenn	05725.0978-00	4461
22852	7590	10/03/2005	EXAMINER	
FINNEGAN, HENDERSON, FARABOW, GARRETT & DUNNER LLP 901 NEW YORK AVENUE, NW WASHINGTON, DC 20001-4413			SETH, MANAV	
			ART UNIT	PAPER NUMBER
			2625	

DATE MAILED: 10/03/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/024,495	Applicant(s) RUBINSTENN ET AL.	
	Examiner Manav Seth	Art Unit 2625	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 20 June 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-8 and 10-37 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-8 and 10-37 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>06/28/2005</u> | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Amendment

1. The amendment received on June 20, 2005 has been entered in full.
2. Applicant's amendment to the specification has been entered and based on the amendment objection on the specification has been withdrawn.
3. Applicant's arguments with respect to amended claims as presented in the amendment filed have been fully considered but are moot in view of new ground(s) of rejection(s).

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 1-8, 10-23, 26-28 and 31-37 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hillebrand et al., U.S. Patent No. 6,571,003, and further in view of Gutkowicz-Krusin et al. ("Krusin"), U.S. Patent No. 6,208,749.

Claim 1 recites **"A method of performing a skin analysis, the method comprising: receiving at least one image of at least one portion of a subject's facial skin"**. Hillebrand discloses "When the process 300 is initiated, the controller 200 acquires an image (step 302, determines which area(s) of the image to analyze (i.e., a sub-image) (step 304), analyzes those areas to locate defects (steps 306) (figure 3; col. 4, lines 39-53) where identifying or locating the

skin defects such as wrinkles, pores, texture, and /or spots (figures 5-8; col. 6, lines 1-8) being identifying the skin conditions where each skin defect representing each skin condition.

Claim 1 further recites **“wherein during identifying, the at least one image is processed to identify substantially all visible occurrences of the at least one skin condition in at least one part of the at least one image; extracting from the at least one image at least one representation of the at least one skin condition, wherein the extracted representation includes a skin condition image devoid of substantially all facial features other than the at least one skin condition”**. Hillebrand further discloses **“If fully automatic sub-image determination is selected, at step 608 the controller 200 determines all of the landmarks 702 for the sub-image automatically by searching for patterns in the digital image 518 indicative of predetermined landmarks”** (col. 7, lines 17-28). Hillebrand further discloses **“The purpose of the index variable is to keep track of which type of skin defect is being analyzed. If only one defect type is being analyzed, the index variable may be eliminated. At step 804 a plurality of areas in the sub-image containing the current defect type are located. For example, if the sub-image contains six red-spots, then six locations in the sub-image may be determined.....”** (col. 8, lines 20-45). It is clear from the above disclosure that during identifying, the at least one image is processed to identify substantially all visible occurrences of the at least one skin condition (defect) in at least one part of the at least one image. Hillebrand further discloses that only wrinkles can be extracted (figure 12), only texture can be extracted (figure 11), only pores can be extracted (figure 13), and only spots can be extracted which conforms to **“extracting from the at least one image at least one representation of the at least one skin condition, wherein the extracted representation**

includes a skin condition image devoid of substantially all facial features other than the at least one skin condition”.

Claim 1 further recites “Storing information reflective of the at least one representation; and displaying the skin condition image such that the subject is substantially unidentifiable”. Hillebrand discloses storing information reflective of the at least one representation, and displaying the skin condition image (Figure 2, Data memory 202; col. 4, lines 8-22; col. 10, lines 43-55). Examiner further asserts that it is a well-known inherent fact that “if no memory present, computer doesn’t exit”. Memory is required in computer system at every step of the processing, for example, extracting the image would require extracting the image from memory, displaying the image would require memory without which the display monitor cannot display the image as refreshing of memory is required to continue to display on the screen. Hillebrand teaches taking an image of the subject’s face and then extracting sub-image from the face image to extract the skin condition and thus making subject identifiable (as shown in figures) and **does not explicitly teach directly taking an image of the subject’s skin**. However, examiner here asserts that image processing operations are well known to remove the image portions from the images to just extract the part that is required and such software’s are very well known (for example, Adobe Photoshop) and that it would have been obvious for one of ordinary skill in the art to accept the fact that if an image of just a skin (or sub-image) of the subject is taken and displayed as disclosed by Hillebrand, the subject would be unquestionably unidentifiable and examiner further cites Krusin to further provide more support. Krusin’s invention relates to methods and systems for the computer controlled image analysis of skin, which further includes the automatic characterization of the skin, based on the digital images (col. 1, lines 20-30). Krusin clearly teaches “the digital images may be

obtained by directly imaging the region of interest with a digital camera” (col. 4, lines 12-16) and further discloses “the skin is imaged directly” (col. 8, lines 52-55). Krusin further adding more emphasis on figures 6, 7 and 8 where the image of skin portion is taken and the skin condition is extracted and displayed and therefore making subject unidentifiable. Therefore, it would have been obvious for one of ordinary skill in the art to use the teachings of Krusin of imaging the skin directly in the invention of Hallebrand, which will further provide the system to keep the secrecy of the subject thus making the subject unidentifiable.

Regarding Claim 2, Hillebrand discloses the method of Claim 1, wherein the stored information includes an image of the at least one skin condition (Col. 7, lines 65-67 through Col. 8, lines 1-17) and further adding more emphasis on figures 11-14 where each skin condition is shown in different image.

Regarding Claim 3, Hillebrand discloses the method of Claim 1, wherein the stored information includes a quantification of the at least one representation (Column 7, Lines 65-67, Column 8, Lines 1-17; figure 8, step 808; col. 8, lines 47-62).

Regarding Claim 4, Hillebrand discloses the method of Claim 3, wherein the quantification indicates at least one of an extent, intensity, frequency, type, and severity of the at least one skin condition (Column 7, Lines 65-67, Column 8, Lines 1-17; figure 8, step 808; col. 8, lines 47-62, Large and small red spots).

Regarding Claim 5, Hillebrand discloses the method of Claim 1, wherein the at least one skin condition includes at least one wrinkle (Figure 5, Wrinkles; Column 6, Lines 1-8).

Claim 6 has been similarly analyzed and rejected as per claim 1-5.

Regarding Claim 7, Hillebrand discloses the method of Claim 6, wherein the visible wrinkles are represented in the extracted representation by marks mirroring contours and locations of the visible wrinkles (Column 8, Lines 33-46). Also, see Krusin (col. 18, lines 30-42).

Regarding Claim 8, Hillebrand discloses the method of Claim 7, wherein wrinkle depth is reflected in the extracted representation by at least one of mark intensity, color, and visual cue (Column 8, Lines 33-46).

Regarding Claim 10, Hillebrand discloses the method of Claim 1, wherein during receiving, the at least one image is obtained in digital form (Figure 1, Digital Image Generator 120). Also, see Krusin (col. 1, lines 20-30; col. 3, lines 35-45).

Regarding Claim 11, Hillebrand discloses the method of Claim 1, wherein during identifying, a computer processor is used to perform an image processing function (Figure 2, Computing Device 106). Also see Krusin (figure 1A).

Regarding Claim 12, Hillebrand discloses the method of Claim 1, wherein the at least one skin condition includes at least one of skin pore size, texture, elasticity, dryness, cellulitis, sweating,

aging, wrinkles, melanoma, exfoliation, desquamation, homogeneity of color, micro-circulation, shininess, softness, smoothness, hydration, sebum production, cleanliness, irritation, redness, vasomotion, vasodilation, vasoconstriction, pigmentation and freckles (col. 6, 1-10; Column 8, Lines 3-18).

Claim 13 recites “the method of claim 1, wherein storing includes saving the at least one representation at an address separate from an address of the at least one image”. It is an inherent well-known fact that without a memory in the computer, computer does not exist and memory is nothing but an array of capacitors or storage cells and each cell hold a limited data and each cell has a different address for identification of data. Examiner further provides an example for better emphasis on the subject matter in the claim 13. Let’s consider two files (or images to be saved as files) A and B to be saved on a floppy disk on a windows system. User saves file A on floppy disk with name (FIRST) and this name is decoded by the system to provide identification to the data of the file in the memory. If the user tries to save the file B with same name (FIRST), the system will show the error message that “Do you want to replace file A with that of B? and if user says yes, the file B will be saved as (FIRST) and file A will be deleted or overwritten and file A does not exist anymore. If file B was saved with a different name other than FIRST, file A would still exist and file B under different name would have different address. When two files have different names when saved, it will fill up the memory space and finally fill up the whole memory when more files are saved on memory and thus additional memory will be required. If files were saved at same location on top of each other, only the last saved file would exit and the memory would never fill. Therefore from the above example it is clear that data are stored at different addresses in the memory.

Regarding Claim 14, Hillebrand discloses the method of Claim 1, further comprising instructing the subject on how to record the at least one image (Figure 4, image Acquisition; Column 4, lines 55-67, Column 5, Lines 1-14). Also see Krusin (col. 6, lines 1-35; col. 8, lines 20-68).

Regarding Claim 15, Hillebrand discloses the method of Claim 14, wherein instructing includes advising the subject on how to capture the at least one image with an image capture device (Figure 4, image Acquisition; Column 4, lines 55-67, Column 5, Lines 1-14, figures 2-8).

Regarding Claim 16, Hillebrand discloses the method of Claim 15, wherein the image capture device is a digital Camera (Abstract, Lines 4-5). Also see Krusin (col. 4, lines 12-16).

Regarding Claim 17, Hillebrand discloses the method of Claim 14, wherein instructing includes advising the subject on how to capture the at least one image using a scanner (Abstract, Lines 4-5; Figure 4, image Acquisition; Column 4, lines 55-67, Column 5, Lines 1-14).

Regarding Claim 18, Hillebrand discloses the method of Claim 1, further comprising associating personal information about the subject with the information reflective of the at least one representation (Column 5, Lines 43-59).

Regarding Claim 19, Hillebrand discloses the method of Claim 18, wherein the personal information includes at least one of physical characteristics, lifestyle information, family history information, vocational information, environmental information, genetic information, and information correlated to the at least one skin condition (Column 5, Lines 43-59).

Regarding Claim 20, Hillebrand discloses the method of Claim 19, performed on a plurality of subjects, the method further comprising maintaining a searchable database for correlating personal information of the plurality of subjects with skin conditions of the plurality of subjects (Column 5, Lines 43-59).

Regarding Claim 21, Hillebrand discloses the method of Claim 3, wherein the quantification is tracked over time (Column 13, Lines 5-9). Also see Krusin (col. 6, lines 39-42).

Claim 22 has been similarly analyzed and rejected as per claims 1-5.

Regarding Claim 23, Hillebrand discloses the method of Claim 1, wherein during extracting at least one portion of the at least one image is magnified to facilitate identifying the at least one skin condition (Column 8, Lines 13-18. U.S. Patent 5,016,173 which is incorporated by reference in Hillebrand's patent discloses the image is magnified to facilitate identifying the at least one skin condition Column 6, Lines 1-6)).

Regarding Claim 26, Hillebrand discloses the method of Claim 1 conducted, at least in part, in a network environment, wherein receiving at least one image occurs via a network and in at least one location remote from a location of the subject (col. 4, lines 23-35; col. 10, Lines 43-57).

With regards to Claims 27 and 32, arguments analogous to those presented for Claim 1 are applicable to Claims 27 and 32.

With regards to Claim 28, arguments analogous to those presented for Claim 23 are applicable to Claim 28.

With regards to Claim 31, arguments analogous to those presented for Claim 26 are applicable to Claim 31.

With regards to Claim 33, arguments analogous to those presented for Claims 1, 22 and 26 are applicable to Claim 33.

Claims 34 and 36 recites all the same steps as recited in claim 1 except that these steps are used for hair and nail analysis rather than skin analysis. Here examiner asserts that Hillebrand clearly discloses the analysis of “texture, wrinkles, pores, and/or **spots**” on the skin (col. 6, lines 1-15) and these attributes of skin are external part of the body and so are hairs and nails and all these attributes change with the age of the subject. As disclosed above by Hillebrand the analysis of spots and wrinkles (patterns) present on the skin, the nails and hairs as a matter of fact are similarly present as spots or patterns of different colors on the skin and therefore in view of above arguments it would have been obvious for one of ordinary skill in the art at the time of invention was made to analyze nails and hairs similarly as per the Hillebrand’s and Krusin’s disclosure as discussed before. Therefore, claims 34 and 36 has been similarly analyzed and rejected as per claims 1-5.

Claims 35 and 37 has been similarly analyzed and rejected as per claims 34, 36 and 26.

6. Claims 24 and 29 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hillebrand et al., U.S. Patent No. 6,571,003, and further in view of Gutkowicz-Krusin et al. ("Krusin"), U.S. Patent No. 6,208,749 and further in view of Peyron, U.S. Patent No. 3,030,967.

Claims 24 and 29 recites all the limitations of claim 1 but additionally recites the limitation "wherein skin in the received image is covered with powder to facilitate the at least one representation". Both Hillebrand and Krusin do not teach applying powder on the skin before image is taken. Applying powder on the skin to emphasize skin defects such as wrinkles, pores, is very well known and has been used for more than 50 years. Examiner took official notice of this well-known procedure of applying powder on the skin in the previous office action of which applicant's has challenged the official notice. Therefore examiner here provides the reference Peyron, which clearly teaches "powder when applied on skin emphasizes skin defects (condition) such as wrinkles, pores, etc" (col. 1, lines 37-42). Therefore, it would have been obvious for one of ordinary skill in the art at the time of invention was made to use powder on the skin before taking the image as it would emphasize skin defects (condition) such as wrinkles, pores, etc. which would help in obtaining better image skin analysis results. All other limitations recited have been similarly analyzed and rejected as per claims 1-5.

7. Claims 25 and 30 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hillebrand et al., U.S. Patent No. 6,571,003, and further in view of Gutkowicz-Krusin et al. ("Krusin"), U.S. Patent No. 6,208,749 and further in view of EHC Journal, 1994, "Ultraviolet radiation".

Claims 25 and 30 recites all the limitations of claim 1 but additionally recites the limitation "wherein skin in the received image is illuminated with a Woods lamp to facilitate the at least one representation". Hillebrand does teach illuminating the skin using the lightning in order to maximize

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image quality (col. 4, lines 62-67) but does not teach using Woods lamp. Krusin does teach the use of ultraviolet light for skin analysis (col. 4, lines 43-45) but does not specifically teach Woods lamp. Woods lamp as well known is a lamp that radiates ultraviolet light, which is further used in skin analysis to determine skin conditions and was invented by Mr. Robert Wood (1868-1955). Examiner took official notice of this well-known procedure in the previous office action of illuminating the skin with woods lamp for skin analysis being well known of which applicant's has challenged the official notice. Therefore examiner here provides the reference "Ultraviolet Radiation" by EHC. EHC clearly teaches the use of Woods lamp in skin analysis (page 45 of 256). Therefore, it would have been obvious for one of ordinary skill in the art at the time of invention was made to use Woods lamp to image the skin for skin analysis as it being a very well known and established method of doing so. All other limitations of claims 25 and 30 have been similarly analyzed and rejected as per claims 1-5.

Conclusion

Applicant's amendments to the claims and addition of new claims necessitated the new ground(s) of rejection presented in this office action. **Accordingly, THIS ACTION IS MADE FINAL.** See MPEP §706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the


THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Manav Seth whose telephone number is (571) 272-7456. The examiner can normally be reached on Monday to Friday from 8:30 am to 5:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Bhavesh Mehta, can be reached on (571) 272-7453. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Manav Seth
Art Unit 2625
September 27, 2005


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